

Statement of Considerations

REQUEST BY ALLIEDSIGNAL, INC., CERAMIC COMPONENTS, FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN RIGHTS IN SUBJECT INVENTIONS MADE IN THE COURSE OF OR UNDER DEPARTMENT OF ENERGY CONTRACT NO. DE-AC05-84OR21400; SUBCONTRACT NO. 85X-SH596C; DOE WAIVER DOCKET W(A)-98-003 [ORO-735]

AlliedSignal, Inc., Ceramic Components (AlliedSignal) has made a timely request for an advance waiver to worldwide rights in Subject Inventions made in the course of or under Department of Energy (DOE) Contract No. DE-AC05-84OR21400, Subcontract No. 85X-SH596C. The overall scope of work calls for the development of silicon nitride ceramic materials with elongated grain structures to meet requirements for heat engine applications. This waiver request is for rights in inventions made during Phase IV of this subcontract. During Phase I, a basic in situ reinforced silicon nitride material, AS800, was developed. Phase II was for further improving material properties and processing. Phase III involved the development of an advanced fabrication process for making thin-walled parts for hybrid electric vehicles. Phase IV calls for further studies of the effect of processing variations on properties of AS800 and oxidation behavior. Waivers have been granted for rights to inventions made under Phases I-III (W(A)-92-011 [ORO-530], W(A)-96-011 [ORO-628], W(A)-96-012 [ORO-629]). This work is sponsored by the Office of Transportation Technologies.

The dollar amount of the subcontract effort has an estimated value of \$3,866,534, with AlliedSignal cost sharing 20% of all costs.

AlliedSignal is a corporation having a business emphasis on production of ceramic components for high technology applications such as the aerospace and land vehicle markets. In material development, it has expertise in high temperature, structural and wear-resistant silicon nitride ceramics. Its process development emphasizes net shape forming using pressure slip casting and injection molding forming methods. Additionally, AlliedSignal has patents covering technology under the general scope of the subcontract. Therefore, AlliedSignal's experience and expertise will contribute substantially to commercialization of the inventions made under the subcontract.

AlliedSignal is a commercial source of high speed rotating machinery including turbines, compressors, generators, Brayton cycle engine/generator sets, aircraft propulsion engines of turboprop and turboprop types, turbine engines for industrial and surface vehicle propulsion, and many other related systems and parts thereof to numerous nongovernmental customers. Specific to ceramics, it manufactures, among other things, stator vane segments, turbine rotors, gun tube liners, seal rings, compressor components and fuel meters. Considering its market position, it has the capability to commercialize the materials developed under the subcontract.

AlliedSignal's financial investment related to ceramic development includes in excess of \$16.5 million for ceramics, processing technology and equipment. Additionally, AlliedSignal has made substantial contributions under a DOE contract for ceramic matrix composites and for advanced heat engines, in-situ toughened material development, and advanced turbine technology applications. It is committing resources previously used in these activities, such as personnel, equipment, and expertise to develop the materials under this subcontract.

The subcontract has been executed and contains the standard DOE waiver terms and conditions, approved by AlliedSignal, including march-in rights, retention of by the government of a license, preference for U.S. industry and U.S. Competitiveness clauses. The advance patent waiver also contains a paragraph that limits AlliedSignal's ability to alienate waived rights. Specifically, AlliedSignal shall not transfer rights in any invention without prior approval of DOE. Also should there be a change of ownership of AlliedSignal, rights in inventions will be suspended until approval by DOE of the entity obtaining a controlling interest having the waiver.

AlliedSignal agrees that any product, process or service embodying or using any waived invention, or produced through the use of any waived invention will be manufactured, practiced, or provided substantially in the United States, unless AlliedSignal can show to the satisfaction of DOE that it is not commercially feasible to do so.

Granting of the waiver should have little effect on competition since there are several technology options, this being one of many previously or yet-to-be developed in the marketplace. Thus, there should not be undue market concentration of AlliedSignal products.

Grant of the requested waiver should serve as encouragement to other DOE contractors and subcontractors that significant cost sharing will be recognized as an acceptable consideration for granting greater rights in Subject Inventions.

In view of the acceptable level of cost sharing by AlliedSignal and the objectives and considerations set forth in 10 CFR 784.4, all of which have been considered, it is recommended that the requested waiver for worldwide rights be granted.



Emily G. Schneider
Patent Attorney

Based on the foregoing Statement of Considerations and the representations in the attached Waiver Petition, it is determined that the interest of the United States and the general public will best be served by a waiver of U.S. and foreign patent rights, and therefore, the waiver is granted. This waiver shall not apply to a modification or extension of the cost-shared contract where, through such a modification or extension, the purpose, scope or cost of the contract has been substantially altered.

CONCURRENCE:



Denise Swink
Deputy Assistant Secretary
Office of Industrial Technologies

Date: 7/28/98

APPROVAL:



Paul A. Gottlieb
Assistant General Counsel for
Technology Transfer and
Intellectual Property

Date: 7-30-98

(4) Notwithstanding the foregoing paragraph (k) (3), the Contractor shall not be obligated to license any Background Patent if the Contractor demonstrates to the satisfaction of the Secretary or his designee that the Contractor or its licensees are supplying the subject matter covered by said Background Patent in sufficient quantity and at reasonable prices to satisfy market needs, or have taken effective steps or within a reasonable time are expected to take effective steps to so supply the subject matter.

(l) Atomic Energy.

(1) No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the Contractor or its employees with respect to any invention or discovery made or conceived in the course of or under this contract.

(2) Except as otherwise authorized in writing by the Contracting Officer, the Contractor will obtain patent agreements to effectuate the provisions of paragraph (1) (1) of this clause from all persons who perform any part of the work under this contract, except nontechnical personnel, such as clerical employees and manual laborers.

(m) Limitation of rights.

Nothing contained in this Patent Rights clause shall be deemed to give the Government any rights with respect to any invention other than a Subject Invention except as set forth in the Patent Rights clause of this contract.

(n) Limitation in Alienation of Waived Rights

Except for the license reserved to the Contractor in (c) (1), the Contractor agrees that any alienation of rights in waived subject inventions by assignment, license or otherwise is subject to written approval of the Contracting Officer; and further that in the event a controlling interest is to be acquired by a foreign entity in the Contractor or to any assignee or licensee of a waived invention, then in that case any rights in the waived invention to be acquired by the foreign entity will be subject to written approval of the Contracting Officer.

(o) U.S. Competitiveness

The Contractor agrees that any product, process or service embodying or using any waived invention or produced through the use of any waived invention will be manufactured, practiced or provided substantially in the United States, unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible to do so.